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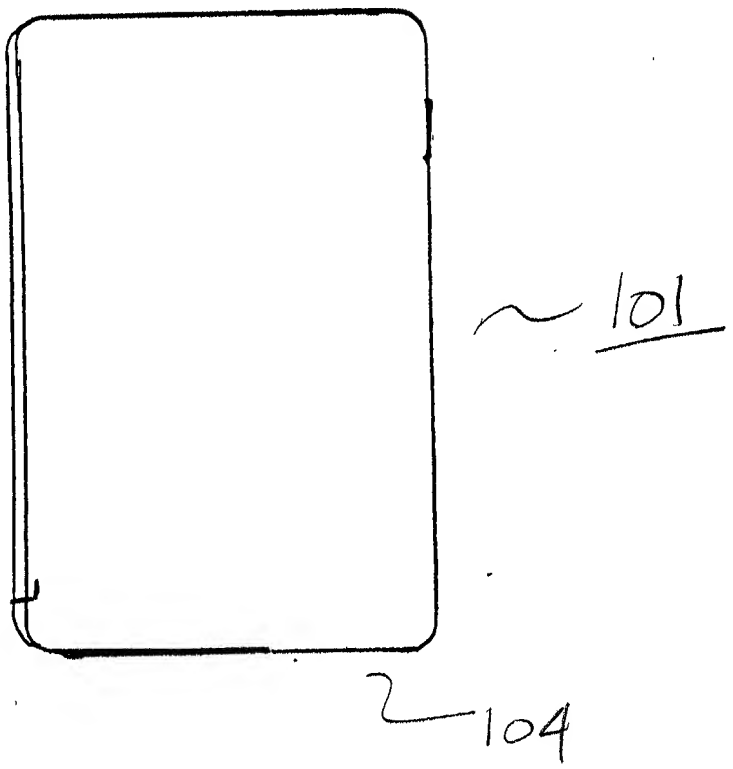


Fig 1A

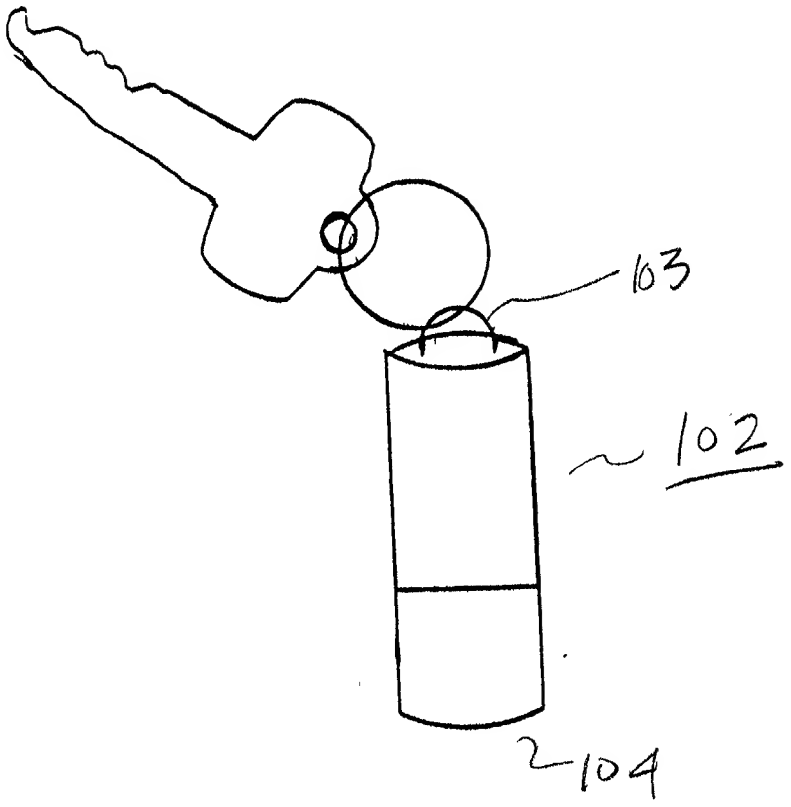


Fig 1B

Docket No. 2000-0251B
1 of 1

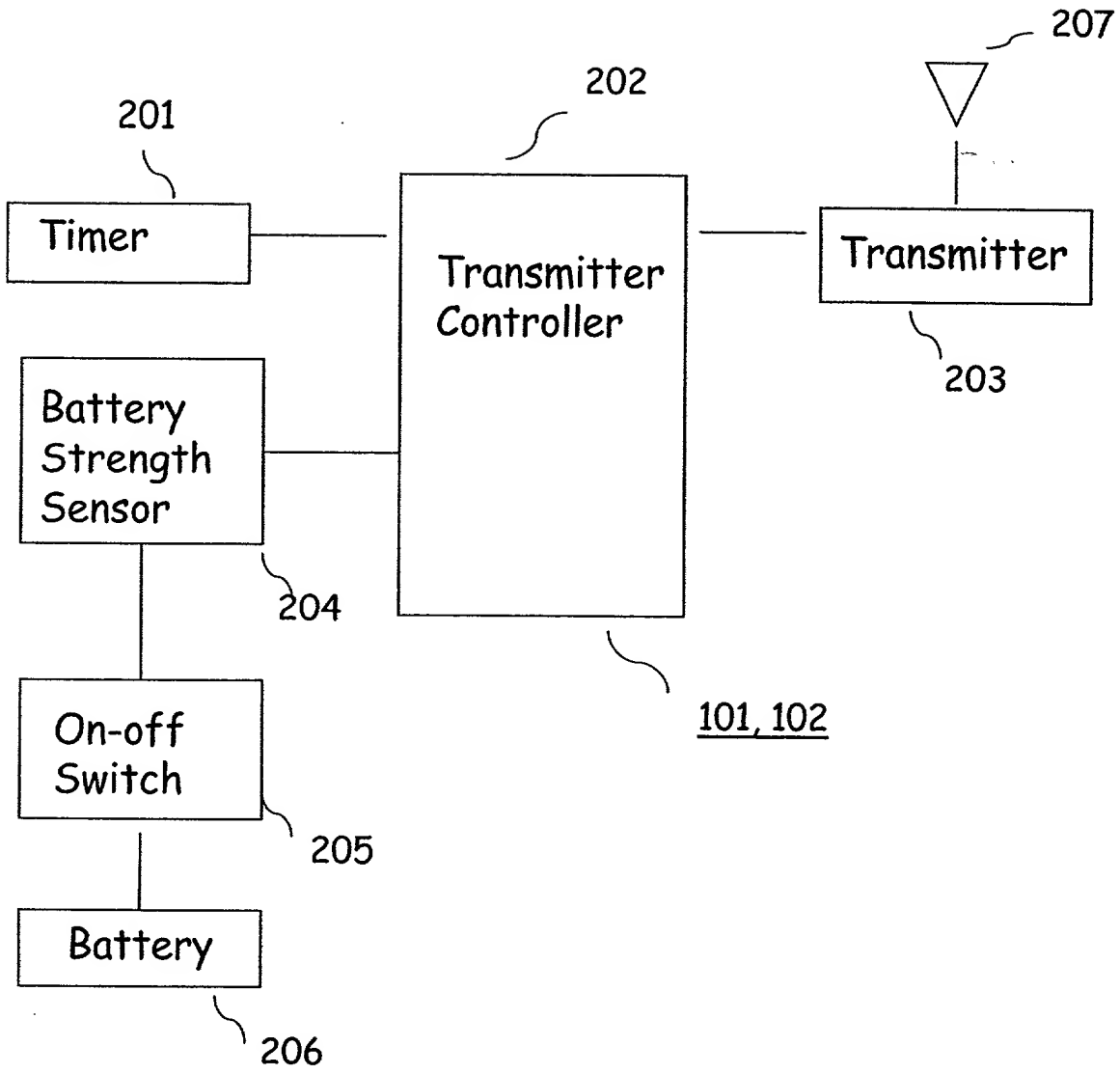

207
202
201
Timer
Transmitter Controller
Transmitter
203
Battery Strength Sensor
204
101, 102
On-off Switch
205
Battery
206

Fig. 2

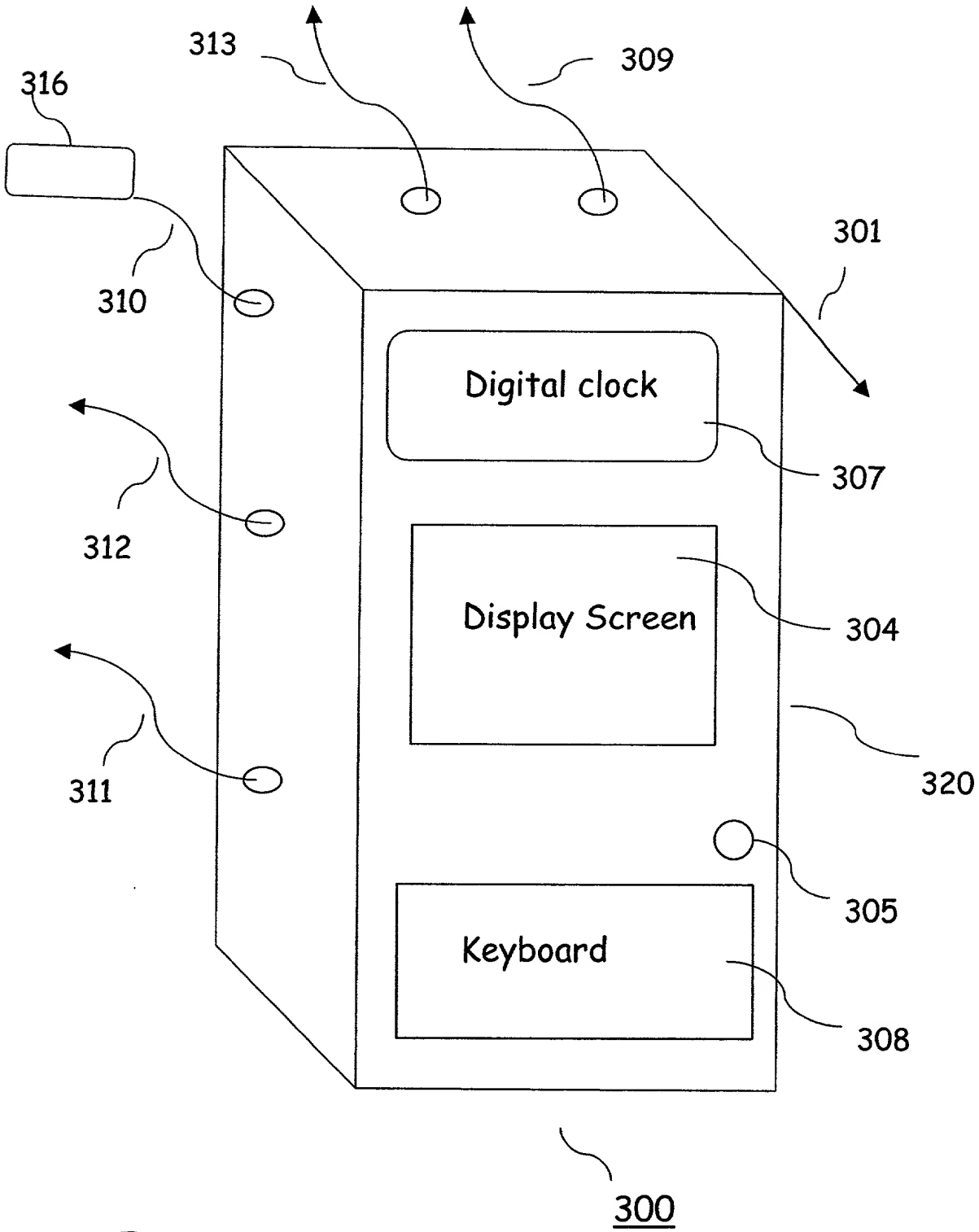

313
309
316
310
301
Digital clock
307
312
Display Screen
304
311
320
305
Keyboard
308
300

Fig. 3A

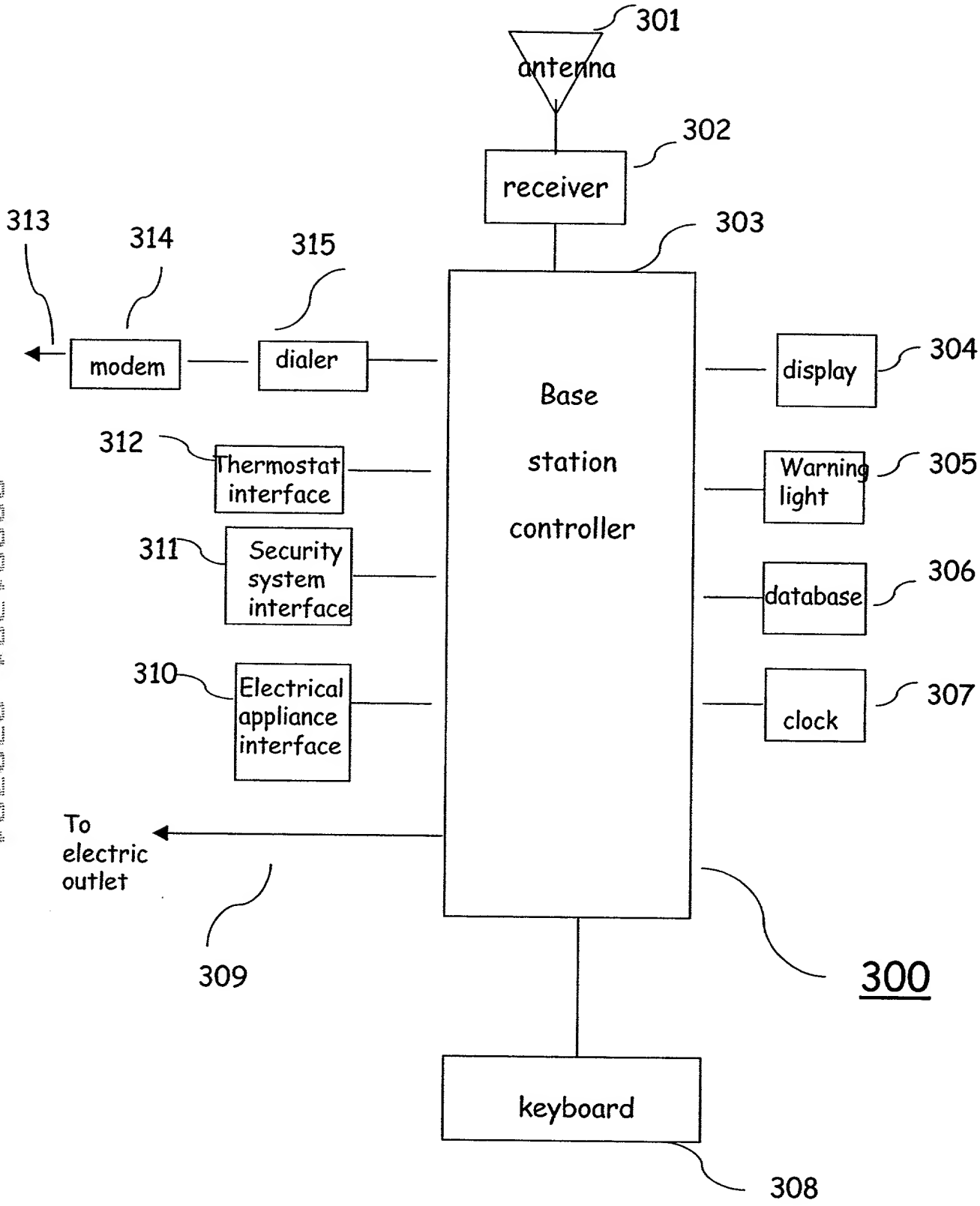

301
antenna
302
receiver
303
313
314
315
modem
dialer
Base
station
controller
display
304
312
Thermostat
interface
Warning
light
305
311
Security
system
interface
database
306
310
Electrical
appliance
interface
clock
307
To
electric
outlet
309
300
keyboard
308

Fig 3B

Fig. 4A

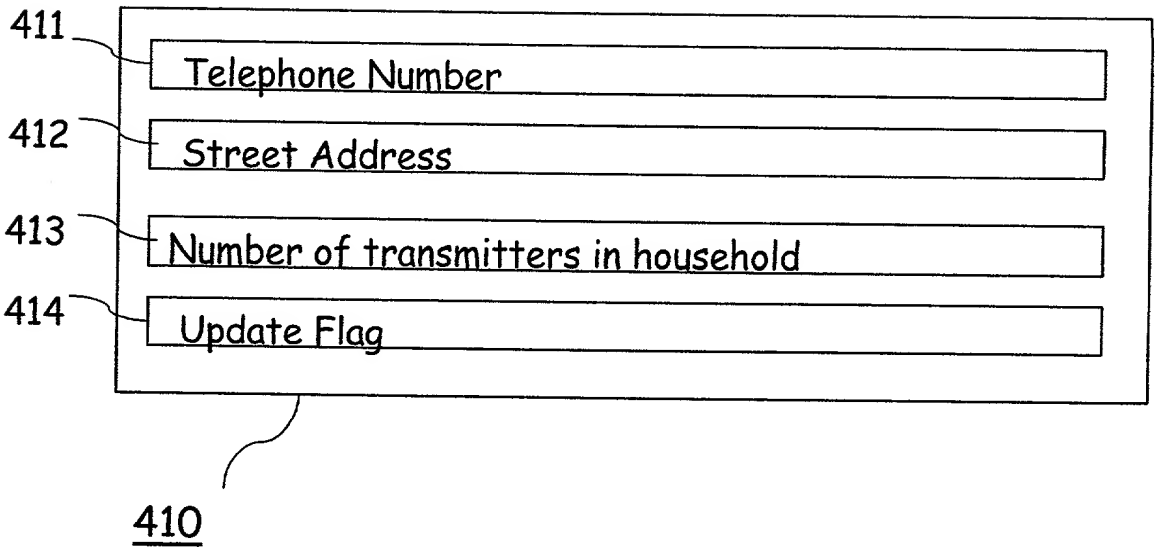

411
Telephone Number
412
Street Address
413
Number of transmitters in household
414
Update Flag
410

Fig. 4B

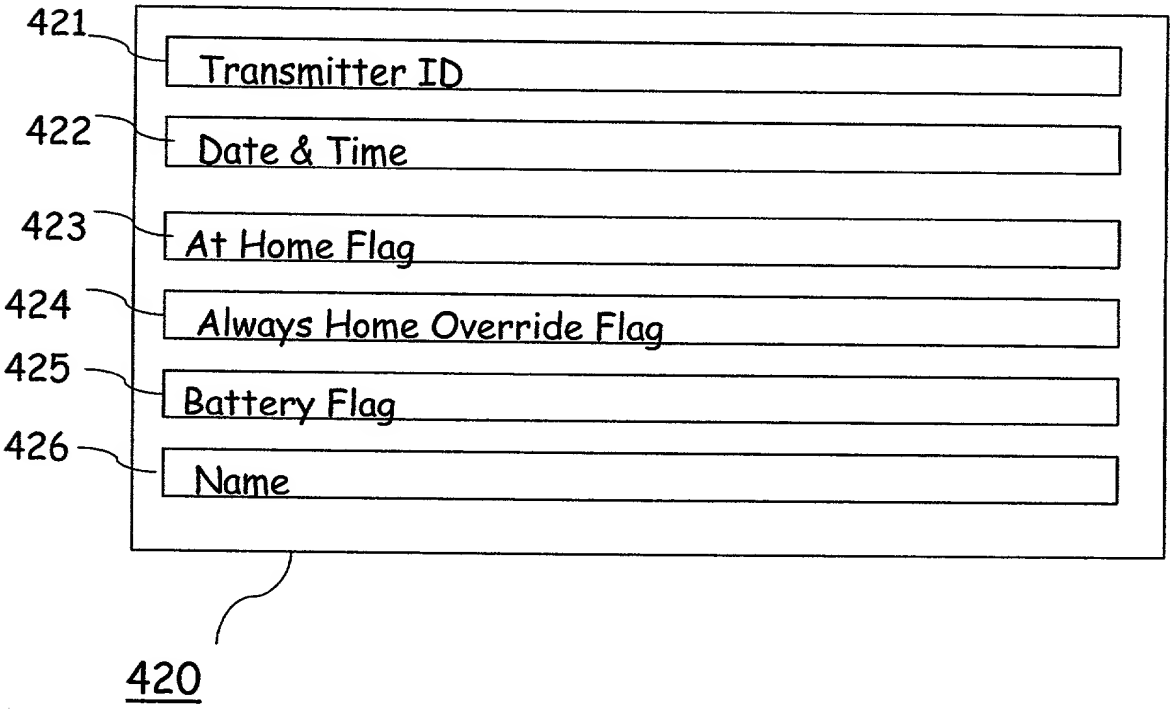
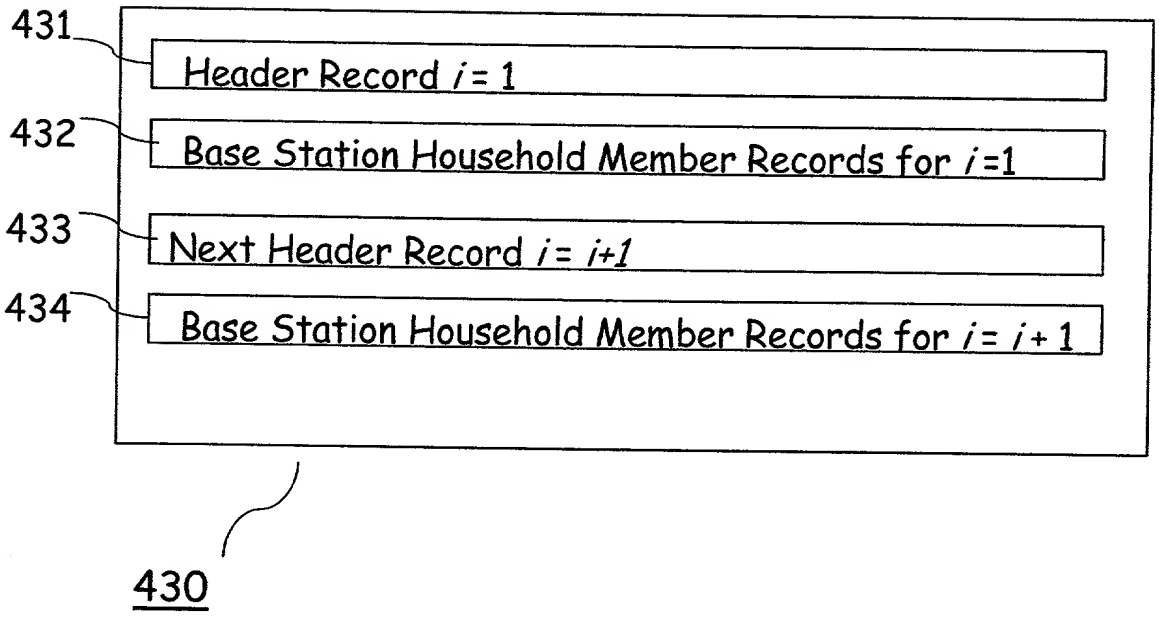

421
Transmitter ID
422
Date & Time
423
At Home Flag
424
Always Home Override Flag
425
Battery Flag
426
Name
420

Fig. 4C


431
Header Record i = 1
432
Base Station Household Member Records for i=1
433
Next Header Record i = i+1
434
Base Station Household Member Records for i = i + 1
430

UPDATE BASE STATION DATABASE AFTER A HOUSEHOLD MEMBER ARRIVES HOME

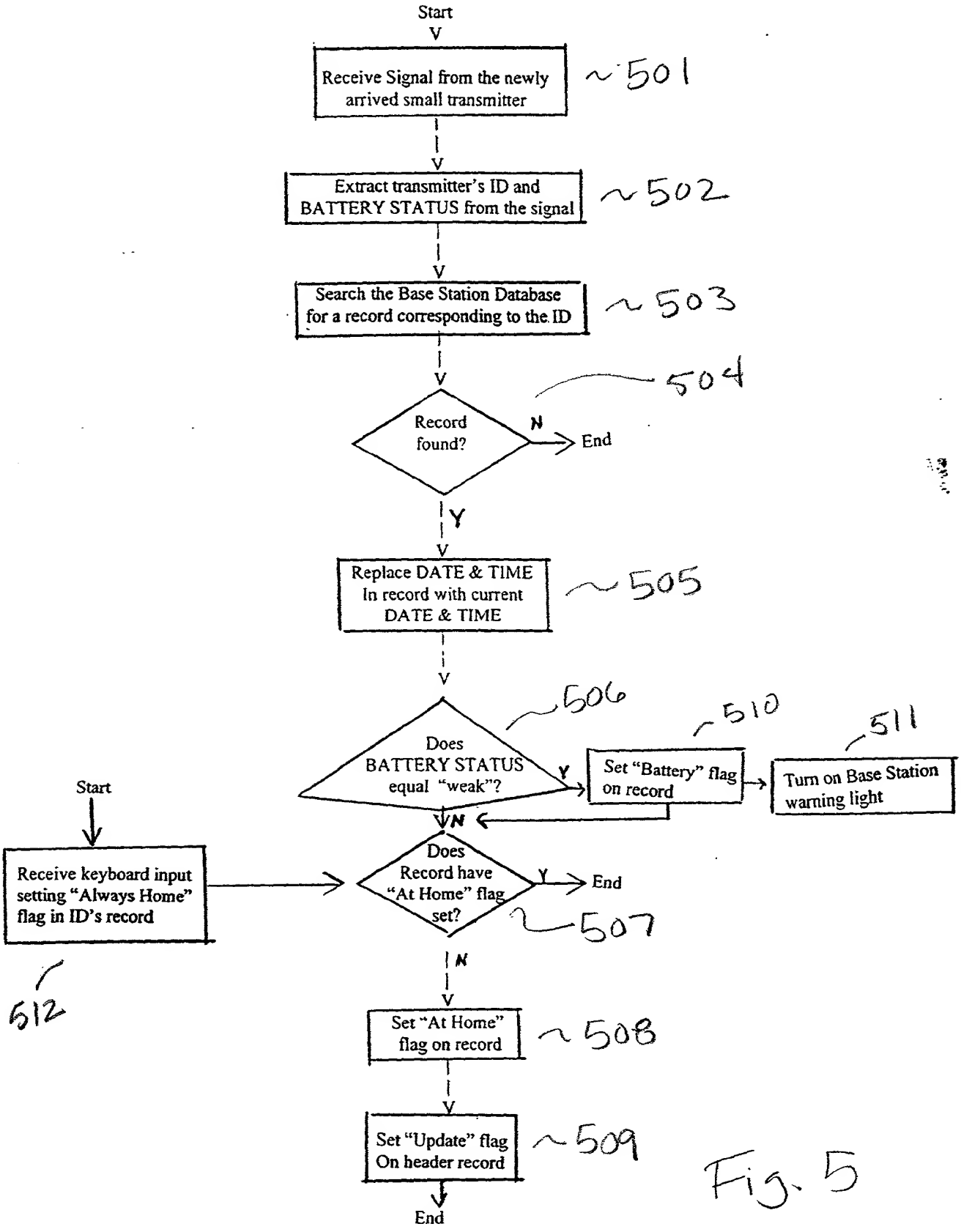


Fig. 5

UPDATE THE BASE STATION DATABASE AFTER A HOUSEHOLD MEMBER LEAVES HOME

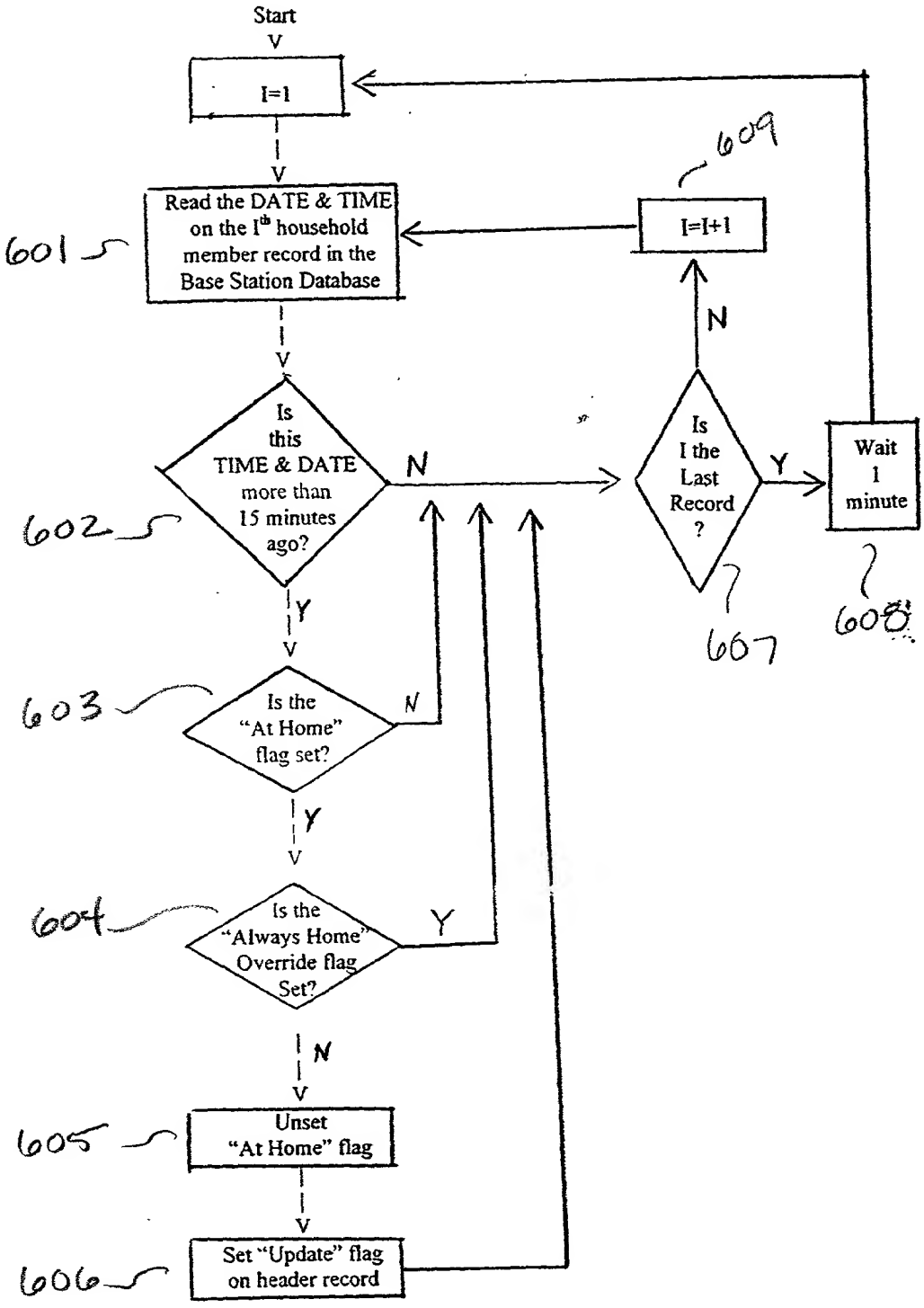


Fig. 6

UPDATE THE NETWORK DATABASE

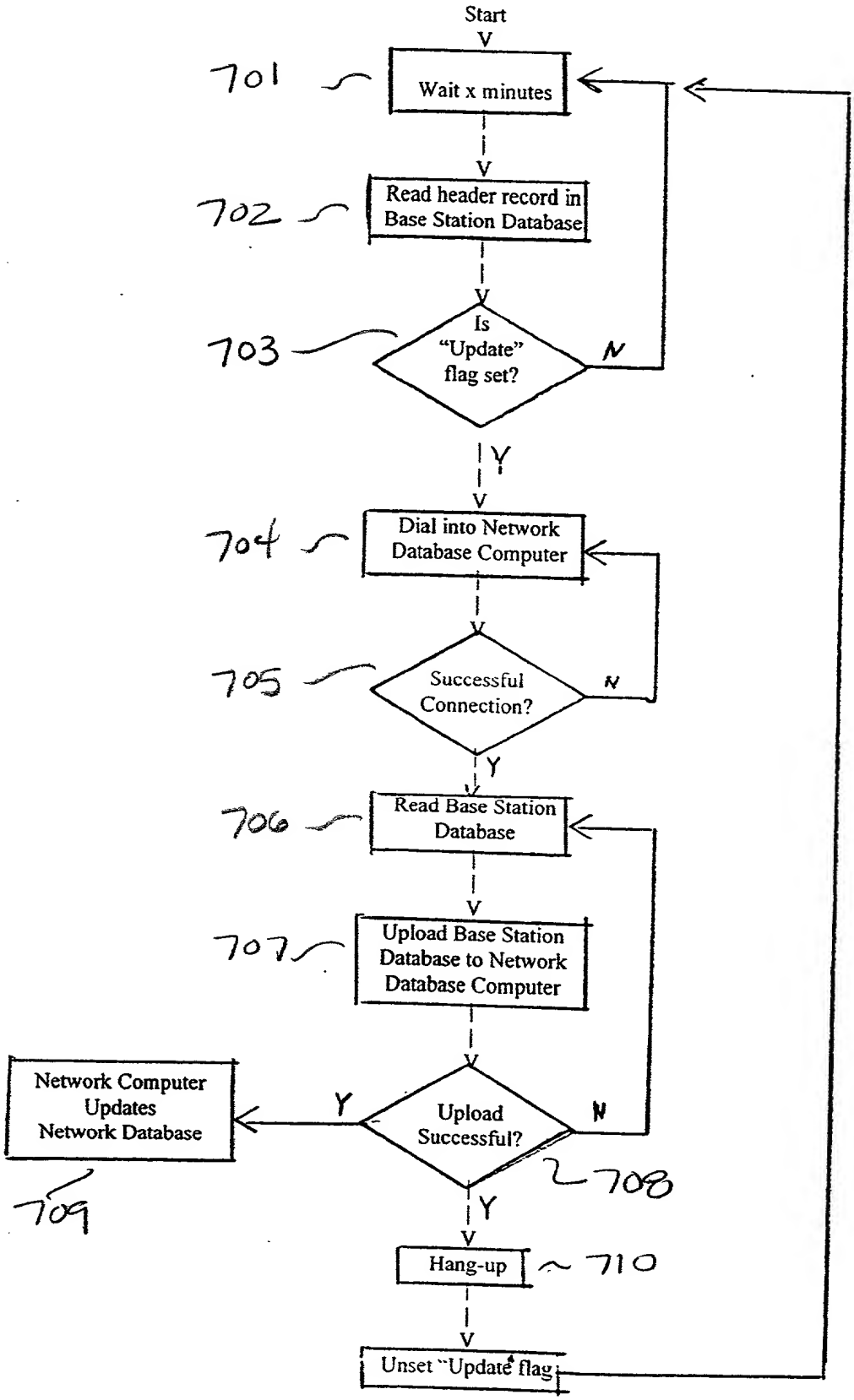


Fig. 7

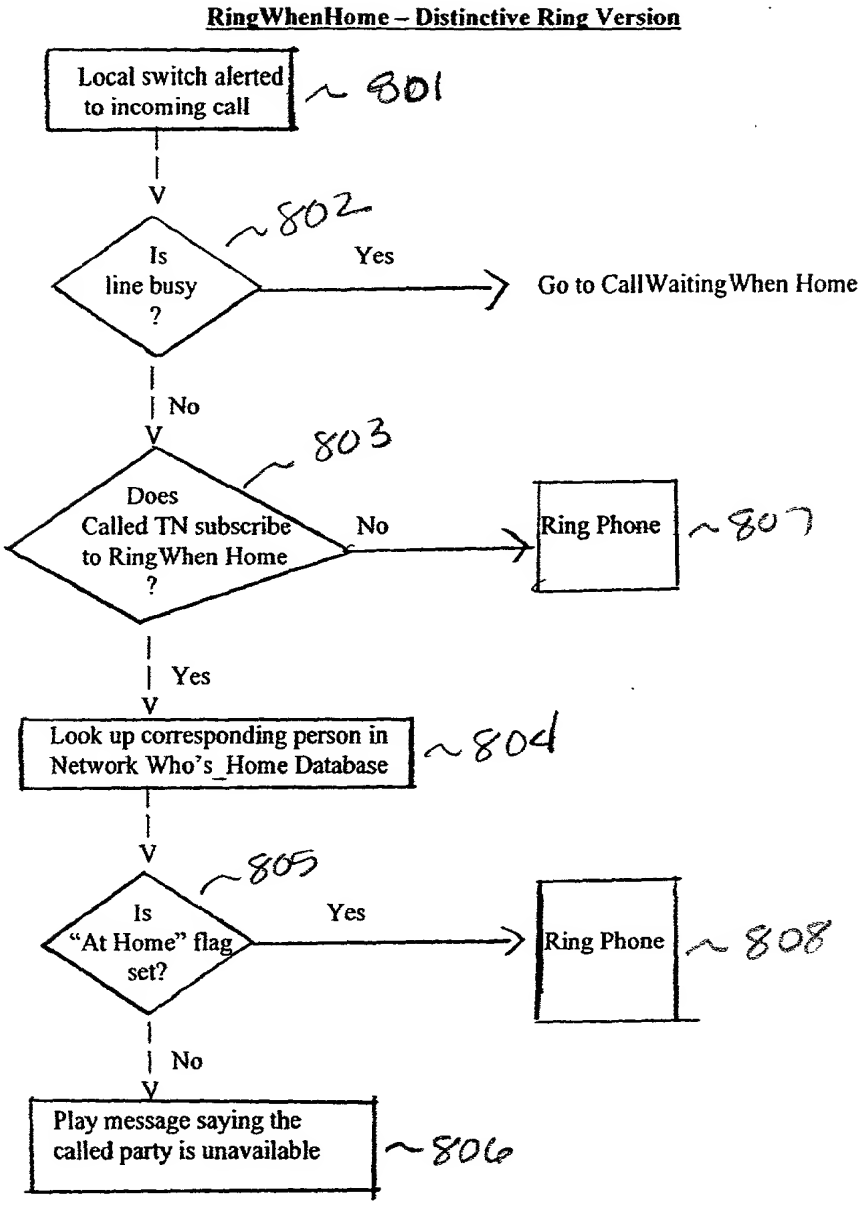

RingWhenHome – Distinctive Ring Version
Local switch alerted to incoming call
801
Is line busy ?
802
Yes
Go to CallWaitingWhen Home
No
Does Called TN subscribe to RingWhen Home ?
803
No
Ring Phone
807
Yes
Look up corresponding person in Network Who's_Home Database
804
Is "At Home" flag set?
805
Yes
Ring Phone
808
No
Play message saying the called party is unavailable
806

Fig. 8

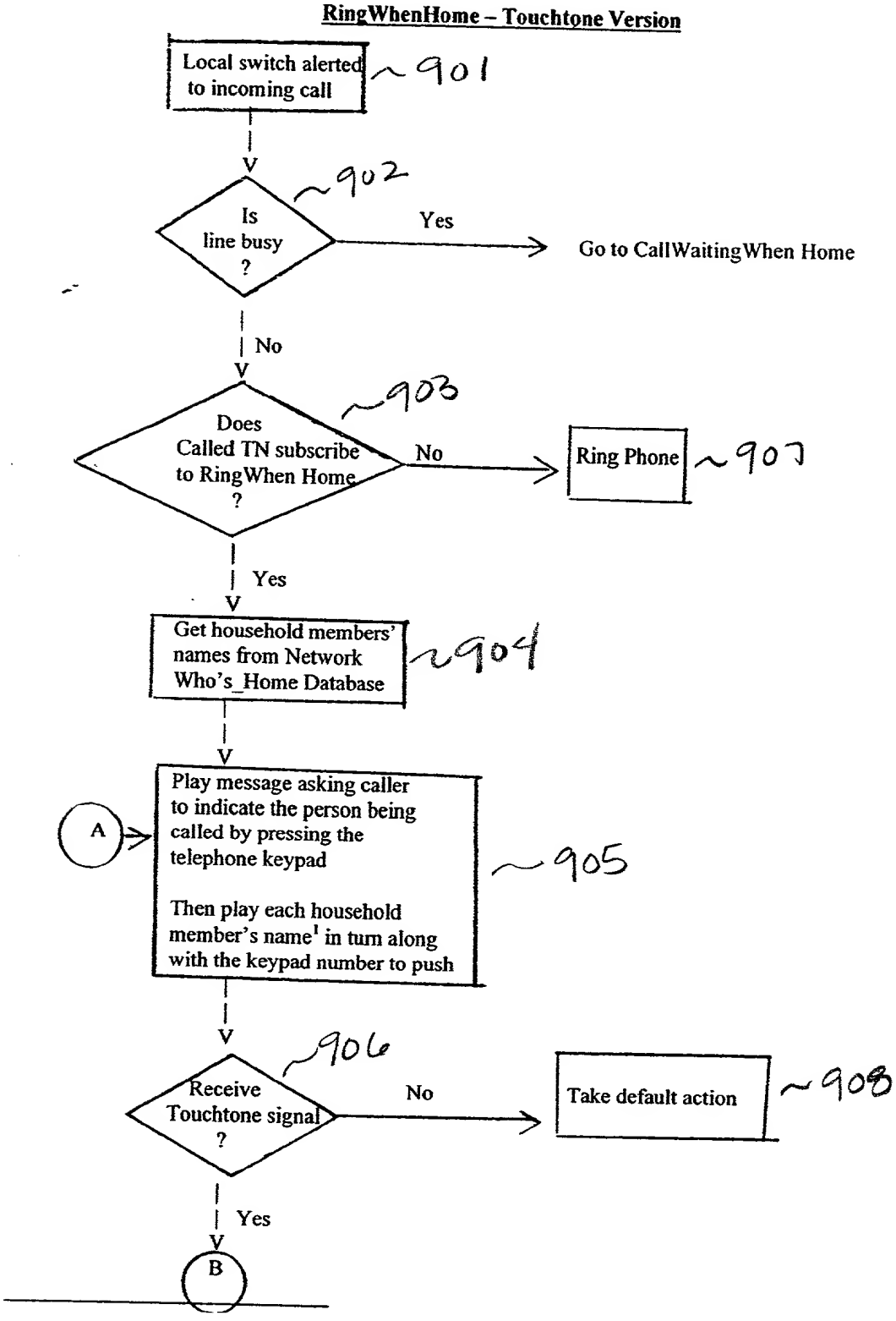

RingWhenHome – Touchtone Version
Local switch alerted to incoming call
901
Is line busy ?
902
Yes
Go to CallWaitingWhen Home
No
Does Called TN subscribe to RingWhen Home ?
903
No
Ring Phone
907
Yes
Get household members' names from Network Who's_Home Database
904
A
Play message asking caller to indicate the person being called by pressing the telephone keypad
Then play each household member's name' in turn along with the keypad number to push
905
Receive Touchtone signal ?
906
No
Take default action
908
Yes
B

Fig 9A

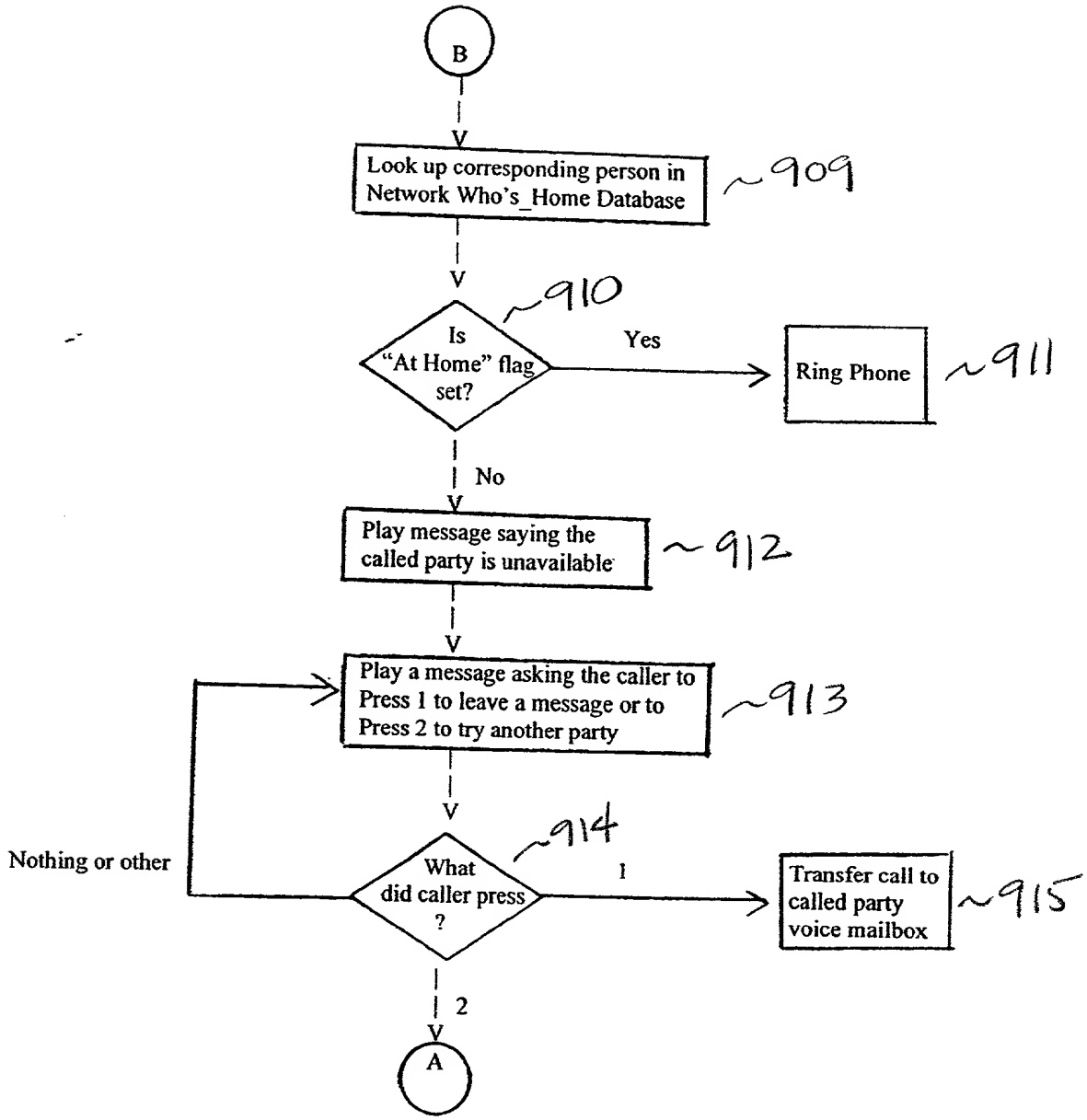

B
Look up corresponding person in Network Who's_Home Database
909
Is "At Home" flag set?
910
Yes
Ring Phone
911
No
Play message saying the called party is unavailable
912
Play a message asking the caller to Press 1 to leave a message or to Press 2 to try another party
913
What did caller press ?
914
Nothing or other
1
Transfer call to called party voice mailbox
915
2
A

Fig 9B

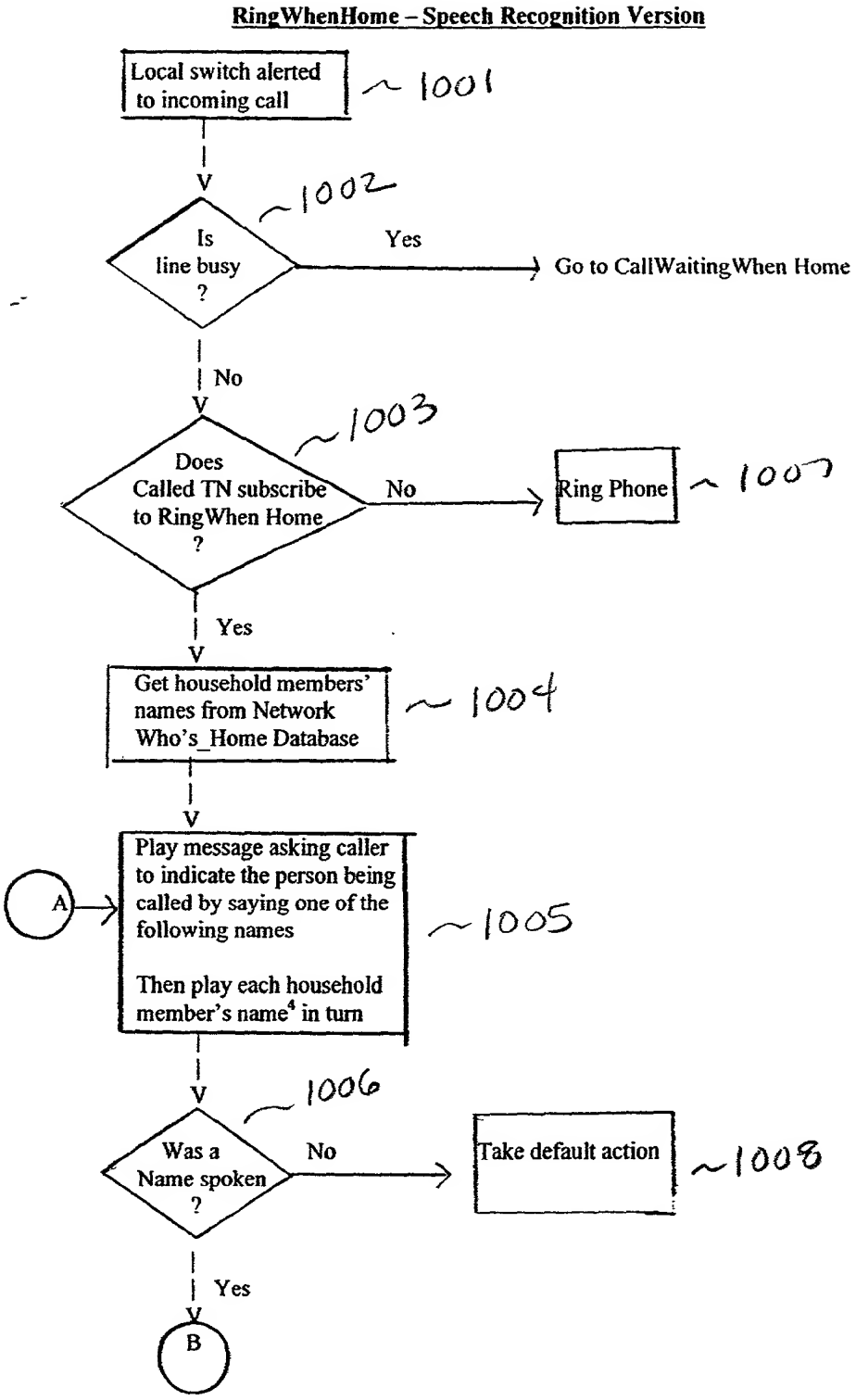

RingWhenHome – Speech Recognition Version
Local switch alerted to incoming call
1001
Is line busy ?
1002
Yes
Go to CallWaitingWhen Home
No
Does Called TN subscribe to RingWhen Home ?
1003
No
Ring Phone
1007
Yes
Get household members' names from Network Who's_Home Database
1004
A
Play message asking caller to indicate the person being called by saying one of the following names
Then play each household member's name[4] in turn
1005
Was a Name spoken ?
1006
No
Take default action
1008
Yes
B

Fig. 10A

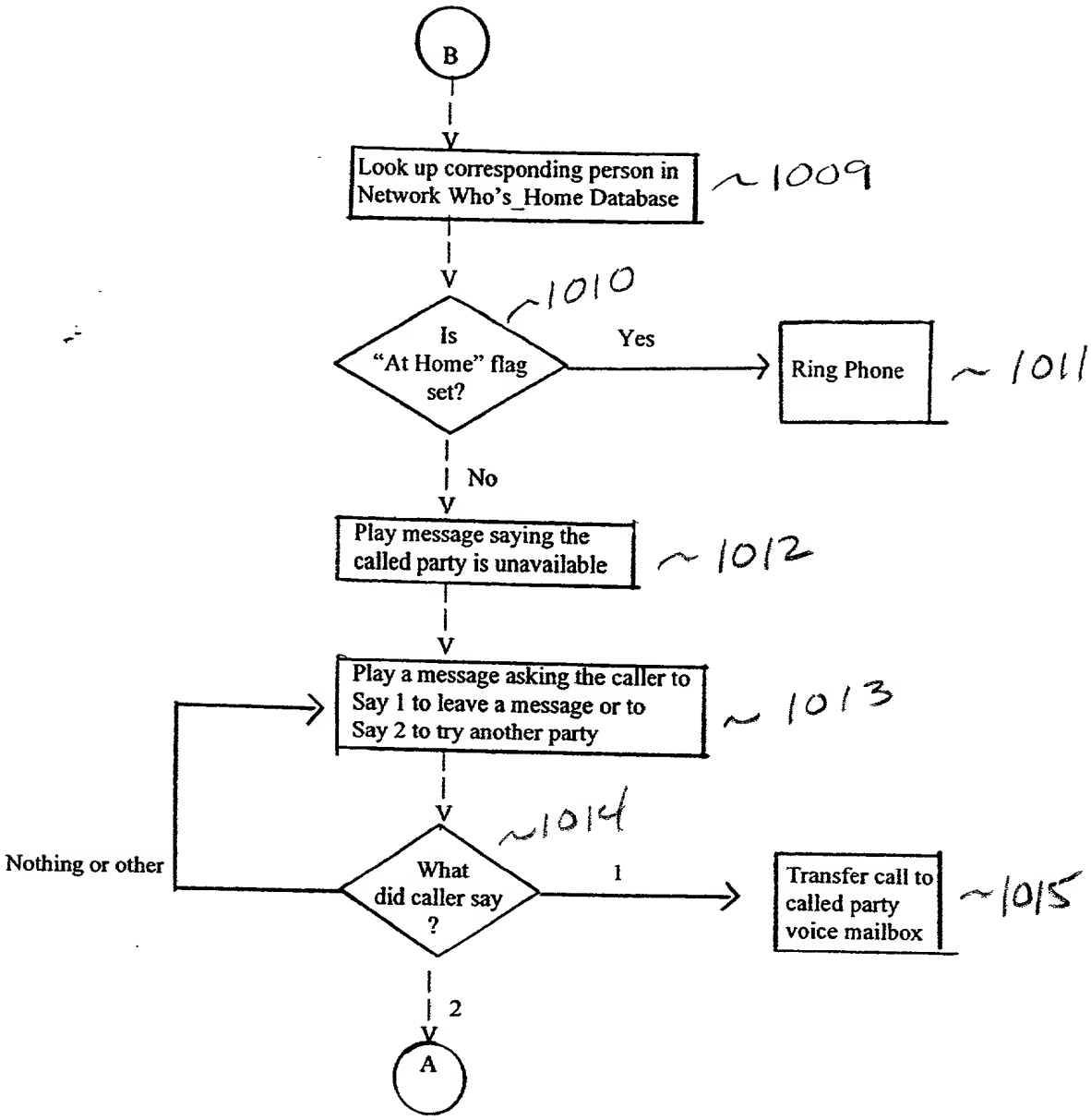

B
Look up corresponding person in Network Who's_Home Database
1009
1010
Is "At Home" flag set?
Yes
Ring Phone
1011
No
Play message saying the called party is unavailable
1012
Play a message asking the caller to Say 1 to leave a message or to Say 2 to try another party
1013
1014
What did caller say ?
Nothing or other
1
Transfer call to called party voice mailbox
1015
2
A

Fig. 10B

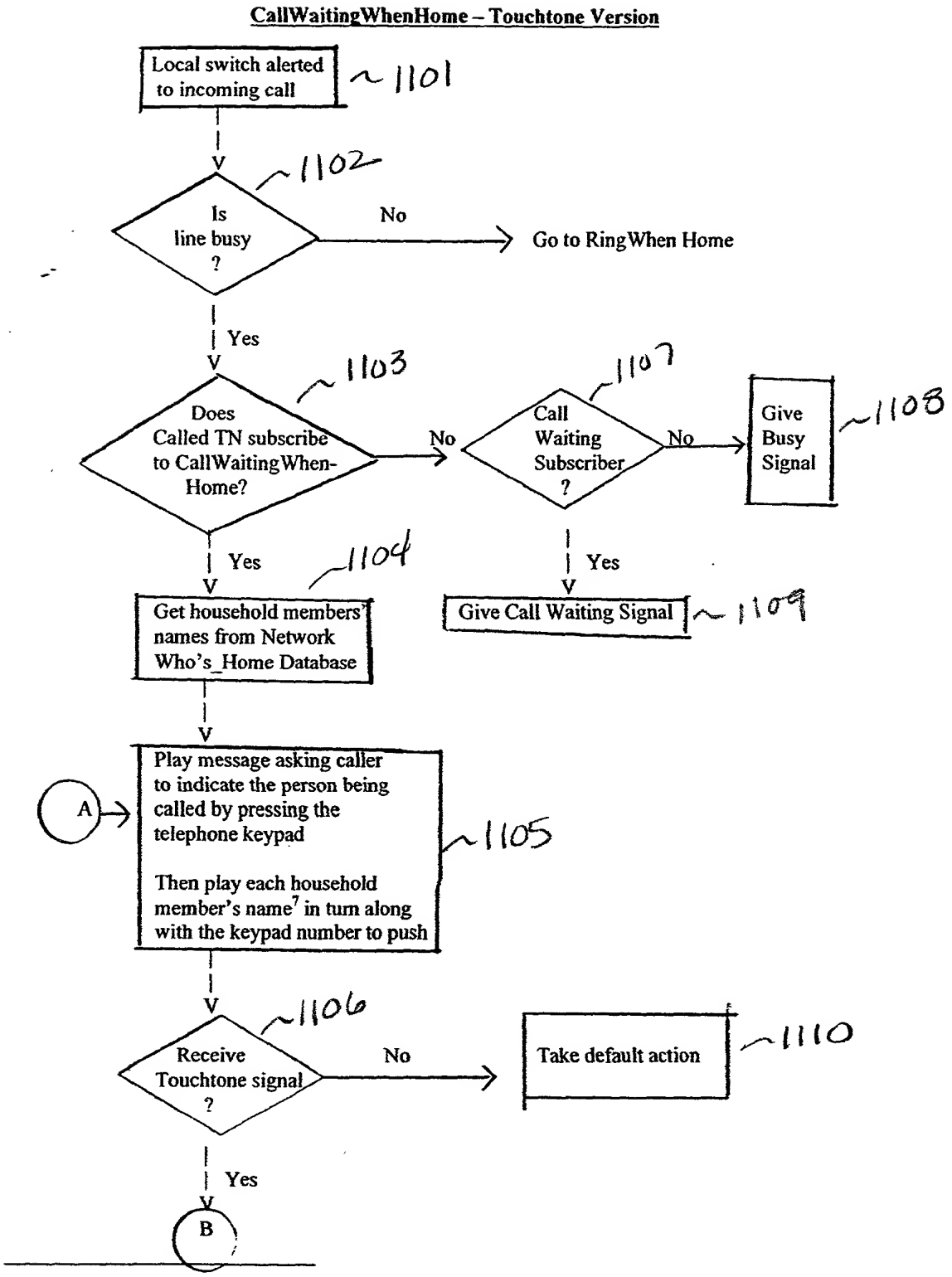

CallWaitingWhenHome – Touchtone Version
Local switch alerted to incoming call
1101
1102
Is line busy ?
No
Go to RingWhen Home
Yes
1103
Does Called TN subscribe to CallWaitingWhen-Home?
No
1107
Call Waiting Subscriber ?
No
Give Busy Signal
1108
Yes
1104
Get household members' names from Network Who's_Home Database
Yes
Give Call Waiting Signal
1109
A
Play message asking caller to indicate the person being called by pressing the telephone keypad
Then play each household member's name[7] in turn along with the keypad number to push
1105
1106
Receive Touchtone signal ?
No
Take default action
1110
Yes
B

Fig. 11A

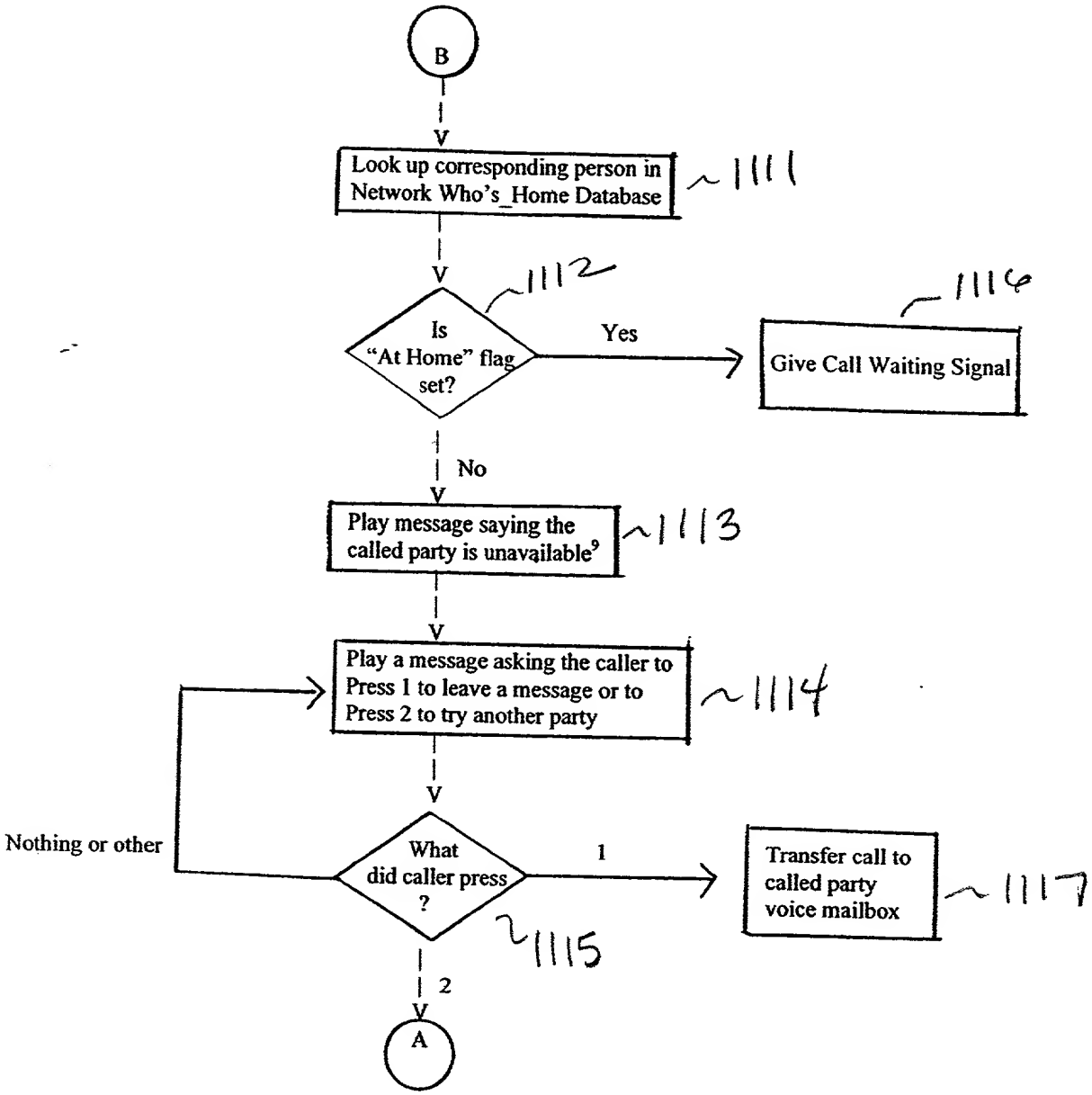

B
Look up corresponding person in Network Who's_Home Database
1111
1112
Is "At Home" flag set?
Yes
1116
Give Call Waiting Signal
No
Play message saying the called party is unavailable[9]
1113
Play a message asking the caller to Press 1 to leave a message or to Press 2 to try another party
1114
Nothing or other
What did caller press ?
1115
1
Transfer call to called party voice mailbox
1117
2
A

Fig. 11B

Fig. 12A

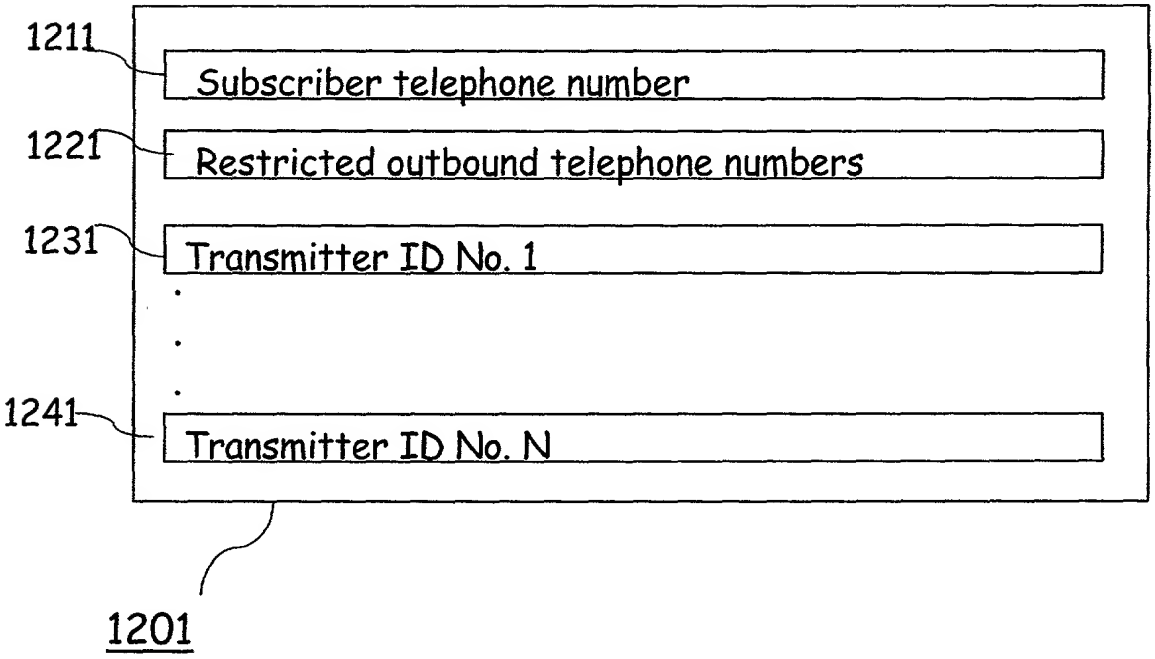
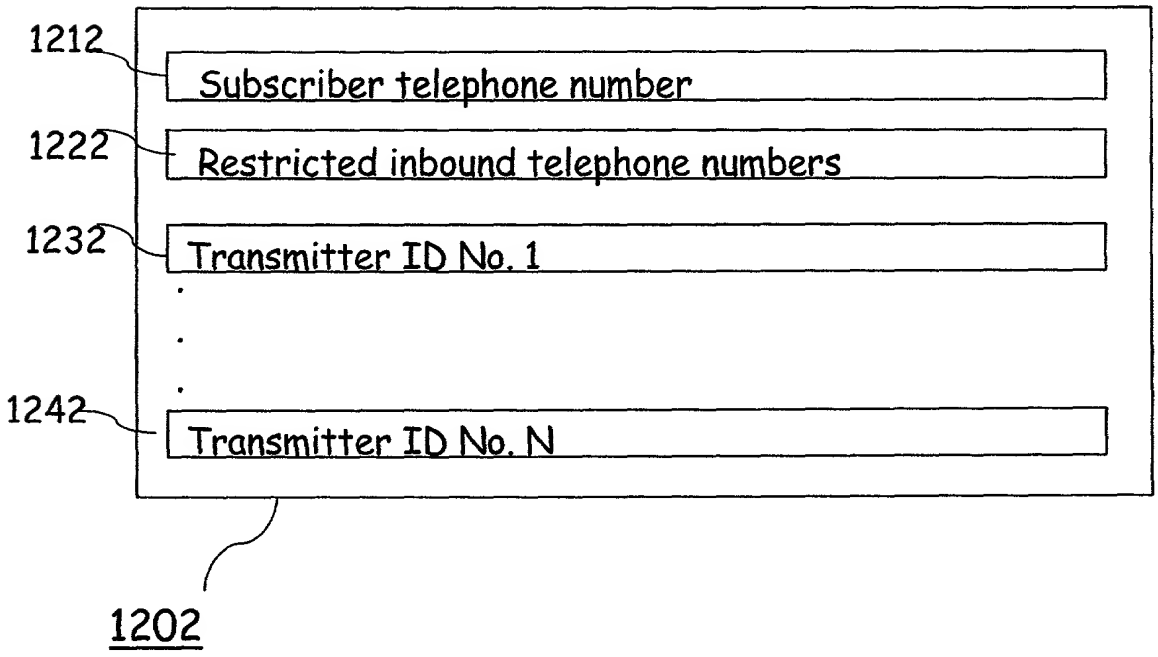


Fig. 12B



IfNotHome – Outbound Version

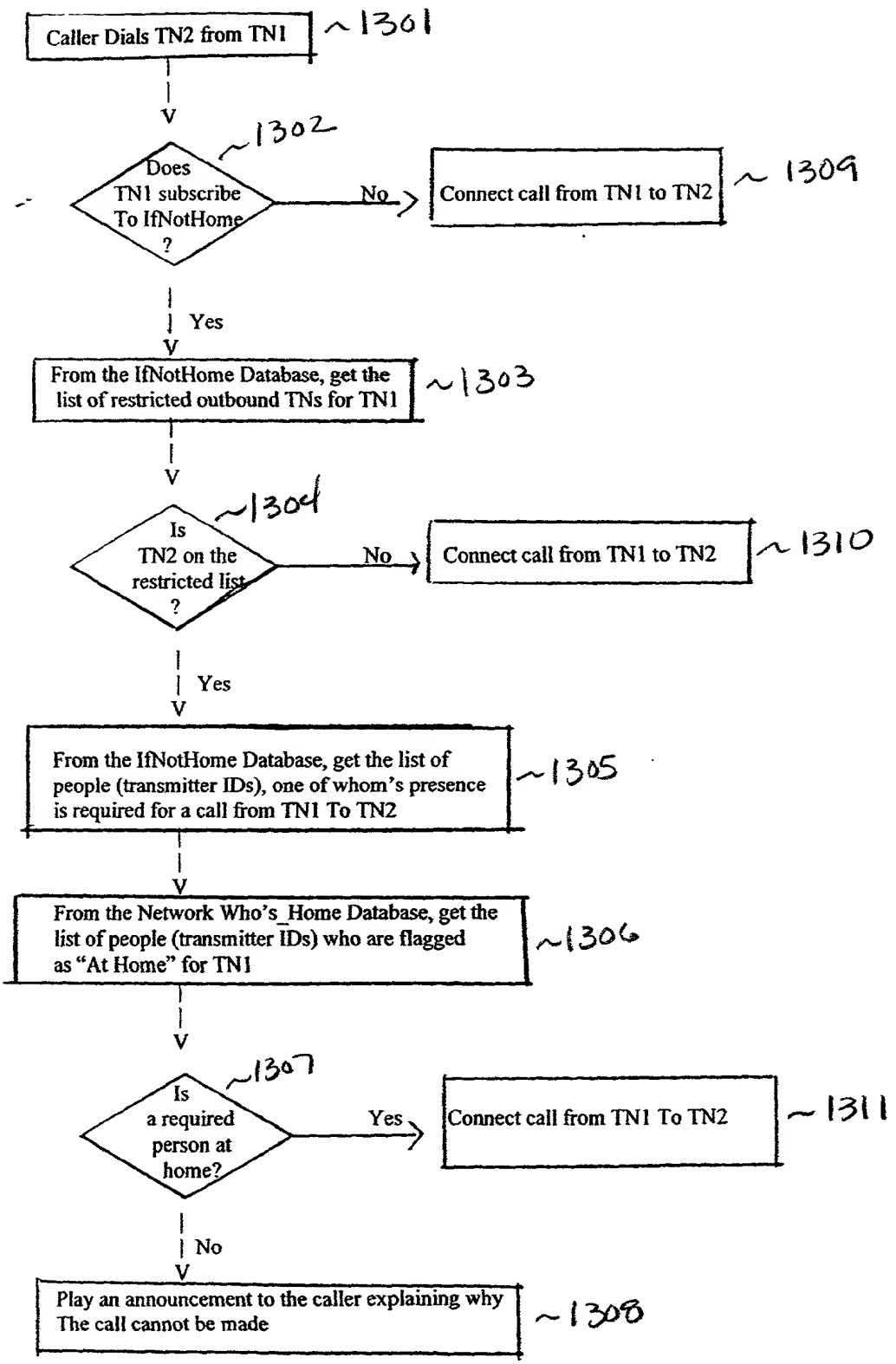


Fig. 13

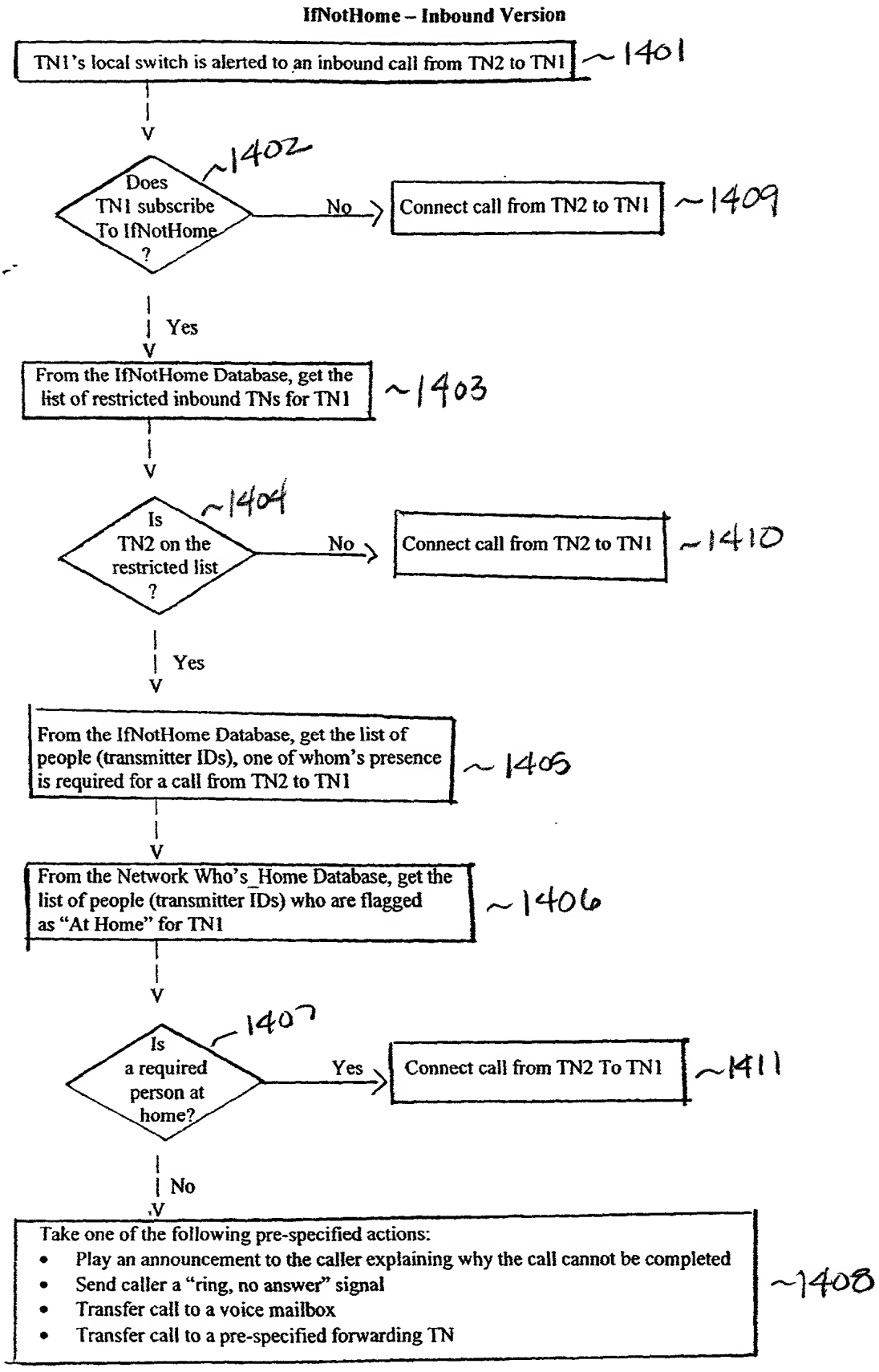

IfNotHome – Inbound Version
TN1's local switch is alerted to an inbound call from TN2 to TN1
1401
Does TN1 subscribe To IfNotHome ?
1402
No
Connect call from TN2 to TN1
1409
Yes
From the IfNotHome Database, get the list of restricted inbound TNs for TN1
1403
Is TN2 on the restricted list ?
1404
No
Connect call from TN2 to TN1
1410
Yes
From the IfNotHome Database, get the list of people (transmitter IDs), one of whom's presence is required for a call from TN2 to TN1
1405
From the Network Who's_Home Database, get the list of people (transmitter IDs) who are flagged as "At Home" for TN1
1406
Is a required person at home?
1407
Yes
Connect call from TN2 To TN1
1411
No
Take one of the following pre-specified actions:
• Play an announcement to the caller explaining why the call cannot be completed
• Send caller a "ring, no answer" signal
• Transfer call to a voice mailbox
• Transfer call to a pre-specified forwarding TN
1408

Fig. 14

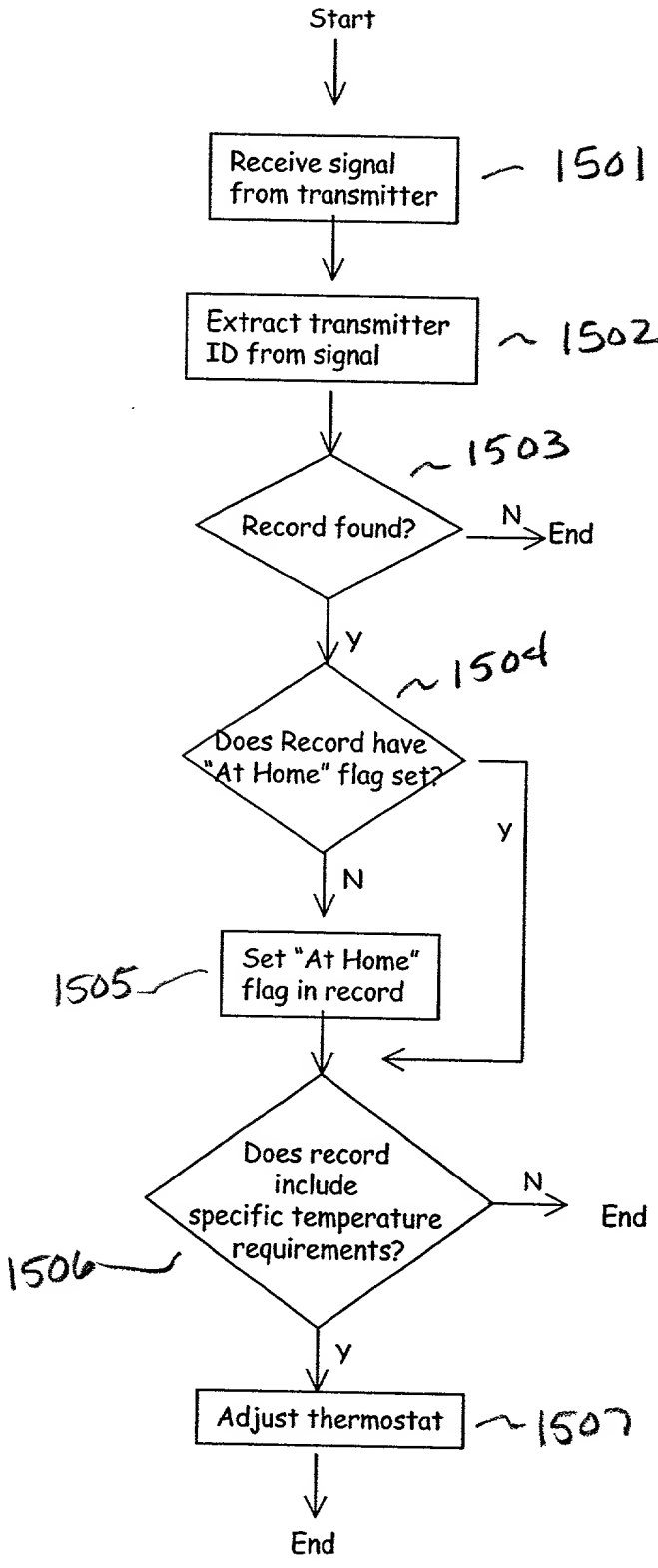

Start
Receive signal from transmitter
1501
Extract transmitter ID from signal
1502
1503
Record found?
N
End
Y
1504
Does Record have "At Home" flag set?
y
N
1505
Set "At Home" flag in record
Does record include specific temperature requirements?
N
End
1506
y
Adjust thermostat
1507
End

Fig. 15

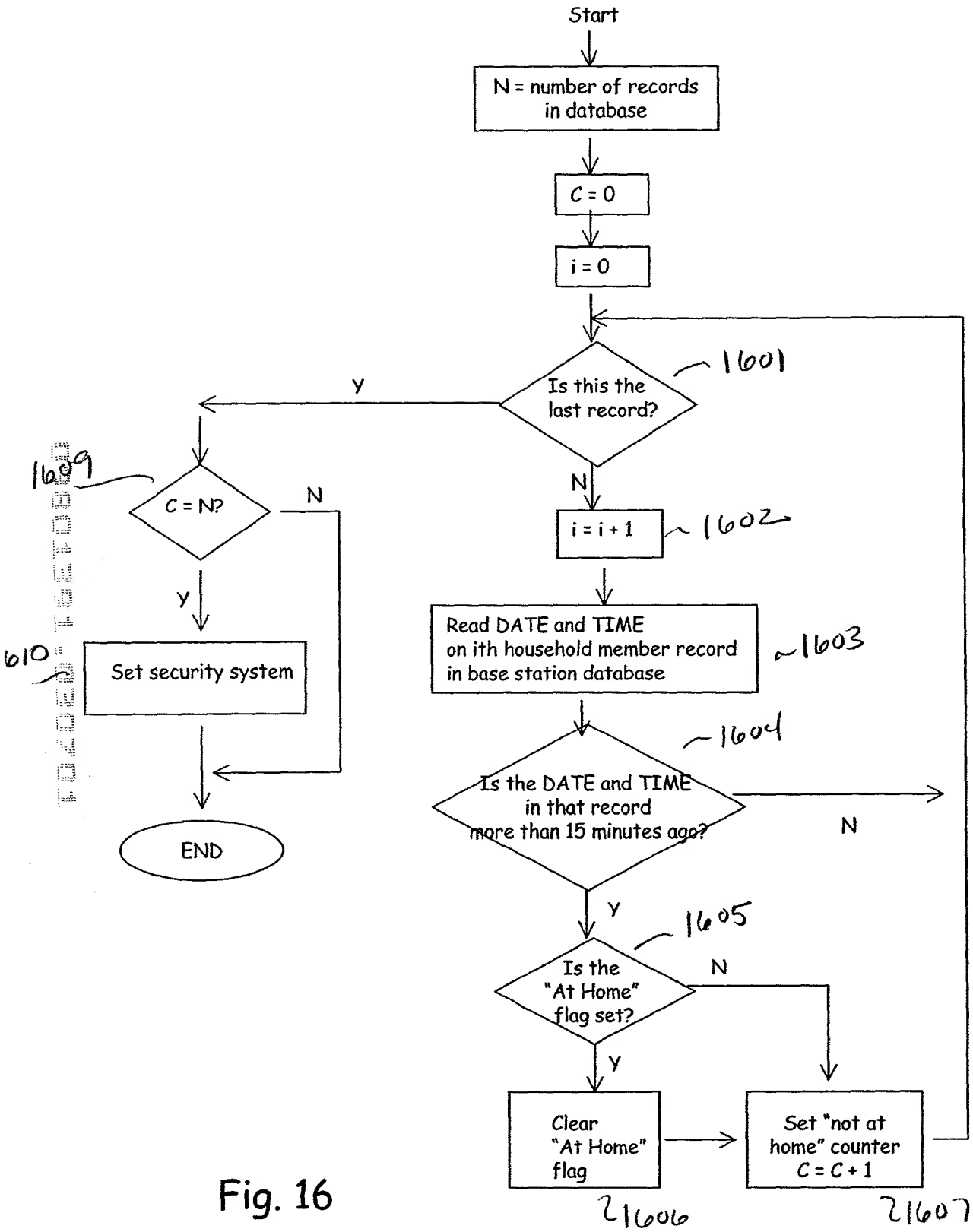

Start
N = number of records in database
C = 0
i = 0
Is this the last record?
1601
Y
N
C = N?
1609
N
Y
Set security system
610
END
i = i + 1
1602
Read DATE and TIME on ith household member record in base station database
1603
Is the DATE and TIME in that record more than 15 minutes ago?
1604
N
Y
Is the "At Home" flag set?
1605
N
Y
Clear "At Home" flag
1606
Set "not at home" counter C = C + 1
1607

Fig. 16